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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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PILLSBURY WINTHROP, LLP  
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MCLEAN, VA 22102

EXAMINER

SHAW, SHAWNA JEANNINE

ART UNIT	PAPER NUMBER
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3737

DATE MAILED: 09/26/2003

10

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/886,395

Applicant(s)

DAUGA, CHRISTOPHE

Examiner

Shawna J. Shaw

Art Unit

3737

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 03 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-12 and 15-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 and 15-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 June 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

Art Unit: 3737

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments with respect to claims 1-12 and 15-23 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Interpretation/Definitions***

2. The examiner understands from applicants remarks filed 7/3/03 that it is conventional in the field of optics to call a first polarizing filter a "polarizer" and a second polarizing filter an "analyser." Thus, it is understood that the "polarization analyser element" is merely equivalent to a polarizing filter and does not have an associated computerized function. Furthermore, in light of this distinction, it is unclear why applicant stated in paper number 6 that the Shiratori (Asahi) reference does not disclose a polarization analyser placed in the path of a reflected light beam when in fact it does teach polarizing filter (25) placed in the path of the reflected light beam as well as means (24) for taking digital images downstream of the polarizing filter and processing unit (20).

### ***Drawings***

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the means for taking digital images placed *downstream* of the polarization analyser element must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Art Unit: 3737

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

4. Claim 12 is objected to because of the following informalities: Claim 12 appears to be redundant to claim 11. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-5, 9, 10, 15-20, 24 and 25 are rejected under 35 U.S.C. 102(e) as being anticipated by Shiratori et al. of record.

Shiratori et al. teach an apparatus for non-contact examination of a surface (23) including a source of polarized light (21, 22), a *polarization analyser (i.e., polarization filter) (25) placed in the path of a light beam reflected by the surface, means for taking digital images (24) downstream of the polarization analyzer (see figure 2), and a processing unit, or computerized means, (20) capable of calculating the brightness and intensity of a plurality of points on the surface from pixels in the digital images (col. 7*

Art Unit: 3737

line 6 and col. 8 lines 25-35). Shiratori et al. further teach wherein the light source may employ visible light or white light (col. 8 lines 7-10).

6. Claims 1-3, 5-10, 15-18 and 20-23 are rejected under 35 U.S.C. 102(e) as being anticipated by Wolff et al.

Wolff et al. teaches a non-contact apparatus for examining a surface including a source of polarized light (16 and light source) substantially the same as the solar spectrum; a polarisation analyser (24, 22) comprising a means for rotating, or electrooptic crystals, placed in the path of the reflected light; and a CCD camera (20) downstream of the polarisation analyzer for processing the brightness and intensity of the reflected light. See figure 6, col. 4 lines 44-58.

7. Claims 1-4, 9, 10, 15-19, are rejected under 35 U.S.C. 102(e) as being anticipated by Hielscher et al.

Hielscher et al. teaches a non-contact apparatus for examining a surface including a source of polarized light (12, 14); a polarisation analyzer (44) placed in the path of the reflected light; and a CCD camera (42) downstream of the polarization analyser for processing the brightness and intensity of the reflected light.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 3737

8. Claims 4, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wolff et al.

Regarding claims 4 and 19, Wolff et al. differs from the claimed invention in that white light is not addressed explicitly, however at the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to use a white light source because Applicant has not disclosed that a white light source provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with either a light source substantially the same as the solar spectrum or a white light source because both perform the same function of enabling the surface of an object to be examined with respect to brightness and intensity.

9. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wolff et al. in view of Doan.

Regarding claims 11 and 12, Wolff et al. differs from the claimed invention in that polychromatic digital images are not addressed. Doan provides the general teaching of obtaining polychromatic (i.e., color) images to inspect circuit boards for contamination or exposed copper surfaces (col. 3 lines 61-67). It would have been obvious at the time the invention was made to a person of ordinary skill in the art to modify Wolff et al. to obtain polychromatic digital images as taught by Doan to provide an improved means for circuit board inspection and for the determination of metal type and placement (see Wolff et al., col. 1 lines 24-29).

Art Unit: 3737

10. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hielscher et al. in view of Mersch.


Regarding claims 11 and 12, Hielscher et al. differs from the claimed invention in that polychromatic digital images are not addressed. Mersch provides the general teaching of a color CCD camera used for characterizing tissue (col. 5 lines 31-38). It would have been obvious at the time the invention was made to a person of ordinary skill in the art to modify the CCD camera of Hielscher et al. with a color CCD camera as taught by Mersch to enable better distinction between different patterns of intensity.

### ***Conclusion***

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shawna J. Shaw whose telephone number is (703) 308-2985. The examiner can normally be reached on 8:00 a.m. - 4:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dennis Ruhl can be reached on (703) 308-2262. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0858.

  
Shawna J. Shaw  
Primary Examiner  
9/16/03